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Solar LED Roadway Luminaire

- DCLEDs Featuring State-of-the-Art Technology
- Industrial Solar Power and Battery Storage
- Maintenance Free Technology

LEDs High efficiency 4000K/5700K, 70/75CRI LUXEON M LEDs are the most advanced chips available from Philips Lumileds. They deliver optimized combinations of light quality and light output needed in all lighting applications. They exceed ENERGY STAR® requirements, helping you meet or exceed growing government mandates. These achieve upwards of 90 Lumens per watt at do so at much cooler temperatures than the competition.

Optics Precision-molded, high-impact glass cover (IK08 strength rating). The lens provide uniform Type II, Type III, and Type V distributions. Keyed lens assemblies ensure consistent photometric performance across a broad range of available levels of lumen output. Proprietary optical design provides zero lumens above the horizontal plane

LED Rated Life (L85)* 100,000 hours or more when operated in a 25°C (77°F) ambient environment. LED rated life is based on 9,000 hours of LED testing per LM-80-08, and projected values per IESNA TM21-11.

Benefits

- Allows for flexible customization using standard LED street fixtures and arms on a variety of pole types and lengths
- Avoids costly trenching and wiring allowing it to be installed at or below the cost of grid-connected lighting
- Saves money - eliminates electricity bills and requires no maintenance for the first five years
- Increases safety and security in parking lots, perimeter areas and other remote locations that have limited access to electricity
- Demonstrates your commitment to sustainable design (contributes no Co2)



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Application – The new Lone Star is ideal for street and security light replacements with a small, sleek, modern design weighting only 6.7 lbs. (3Kg) in the case of the CN2 and CN3. Lighting performance equivalent to 70-250 watt HID (high intensity discharge) luminaires with 50%+ energy savings.

Construction – Heavy-duty, corrosion-resistant, low-copper, die cast aluminum housing and stainless steel hardware provide strength and durability. Powder-coated finish and IP66 construction provides durable resistance to outdoor environments.

Mounting – It mounts to horizontal pole arm with a slipfitter mount and achieves an easy electrical connection with its foot-long cable.

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LEDs – High efficiency 4000K/5700K, 70/75CRI LUXEON M LEDs are the most advanced chips available from Philips Lumileds. They deliver optimized combinations of light quality and light output needed in all lighting applications. They exceed ENERGY STAR® requirements, helping you meet or exceed growing government mandates. These achieve upwards of 90 Lumens per watt in our Lone Star line and their “flip chip” technology allows them to run at much cooler temperatures than the competition.

LED Rated Life (L85)* – 100,000 hours or more when operated in a 25°C (77°F) ambient environment. LED rated life is based on 9,000 hours of LED testing per LM-80-08, and projected values per IESNA TM21-11.

LED Drivers – Available at universal 12 / 24 VDC. DC-DC Step-Up Constant Current LED driver

Ingress Protection – Certified IP66 in LEDs and driver compartments.

Light Cutoff – Full cutoff, zero uplight .

Lighting Arrestor – Lighting arrester option is standard and replaceable.

Photocontrol Options – The Corona has photo control option

Listing – ETL, CE, RoHS, NOM coming soon, CSA, meets IP66, NEMA, IESNA requirements, Dark Sky Compliant, LM-79 and LM-80.

Warranty – 5-year limited warranty.



Example: **CN4421SND**

Model Designator	LED Quantity	CCT	Distribution	Voltage	Housing Color	Photocell	Options
Lone Star	2 3 4 6	4 = 4,100K 6 = 5,700K	2 = Type II 3 = Type III 5 = Type V	1= 12V DC 2= 24V DC	S = Silver	0 = None N = NEMA Receptacle R = NEMA Photocell	D = Dimming (0-10vdc)

CN2- CN3:

Length: 17.in (453mm)
Width: 3.41in (153mm)
Height: 6.0in (87mm)
Weight: 6.7lbs (3kg)



CN4- CN6:

Length: 25.23in (641mm)
Width: 6.49in (165mm)
Height: 4.25in (108mm)
Weight: 10lbs (4.5kg)



*L85 LED rated life is the time period at which lumen output has depreciated to 85% of its initial output.



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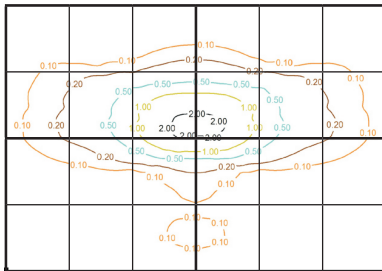
Note: Lumen output is rounded.

Performance Summary:

Model	Drive Current (mA)	Input Watts	Input Current (A)			Distribution Type	4000K and 5700K	
			12V	24V	48V		Lumens	Efcacy (LPW)
CN2	1,050	40	0.23	0.11	N/A	II III V	2,430	90
CN3	1,050	45	0.33	0.17	N/A	II III V	3,600	90

Photometrics:

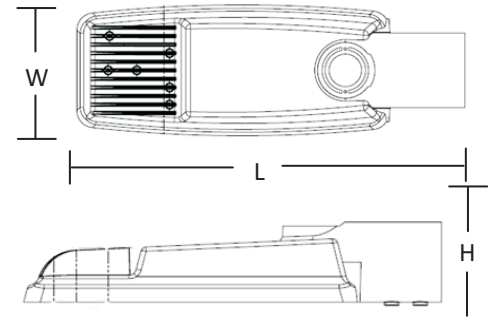
CN3, 5700K, Type II Distribution



LCS Zone	Lumens	% of Luminaire
Forward Low (FL) 0-30°	673	19%
Forward Medium (FM) 30-60°	1375	38%
Forward High (FH) 60-80°	497	14%
Forward Very High (FVH) 80-90°	4	0%
Back Low (BL) 0-30°	302	8%
Back Medium (BM) 30-60°	432	12%
Back High (BH) 60-80°	302	8%
Back Very High (BVH) 80-90°	11	0%
Uplight Low (UL) 90-100°	0.0	0.0%
Uplight High (UH) 100-180°	0.0	0.0%
Total	3,600	100%

BUG Rating: B1-U0-G1

Weights/Dimensions:



CN2, CN3

EPA: 0.6 sq. f.

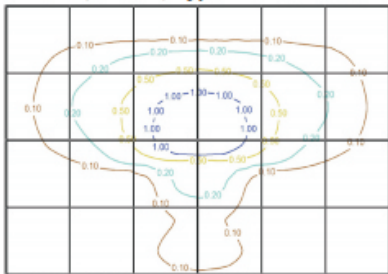
Length: 17 in. (43.18 cm)

Width: 3.41 in. (8.66 cm)

Height: 6.0 in. (15.24 cm)

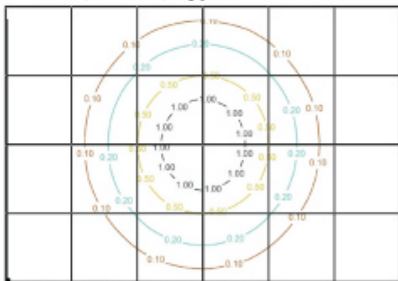
Weight: 6.7 lbs.

CN3, 5700K, Type III Distribution

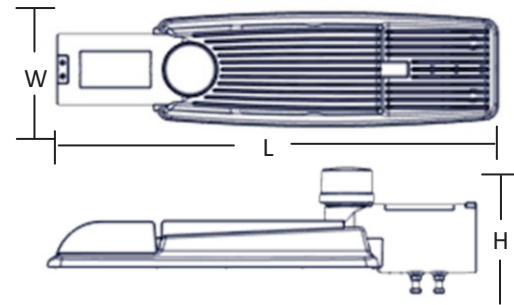


Sample area of 150 x 100 ft at 25 ft height.

CN3, 5700K, Type V Distribution



Sample area of 150 x 100 ft at 25 ft height.

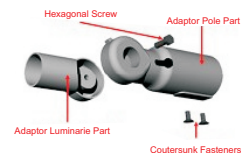
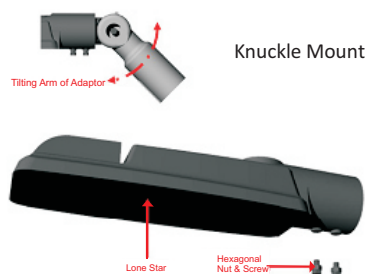


Mountng: (optional)

A slip fter mount acceptng horizontal arms up to 2.5" OD. An optional knuckle mount allows for the fxture to be oriented at angles from 0° to 45°. Installaton and electrical connecton is accomplished with easy access mountng bolts and integral cable loop with fully sealed Tyco Cool Splice Connectors.

Warranty:

5 year limited warranty with a 10 year opton when required.





DC-DC Step-Up Constant Current LED driver



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SPECIFICATION

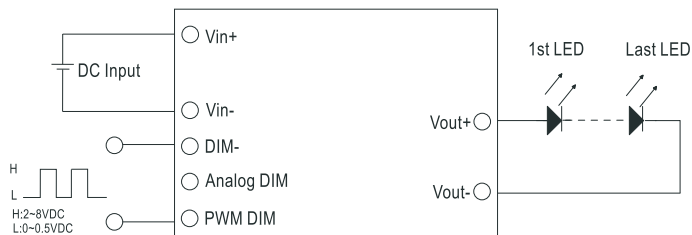
MODEL	LDH-45A-1050 ○	LDH-45B-1050 ○	
OUTPUT	RATED CURRENT	1050mA	1050mA
	CURRENT ACCURACY(Typ.)	5% at 12VDC input	5% at 24VDC input
	VOLTAGE RANGE Note.3	12~43VDC	21~43VDC
	NO LOAD OUTPUT VOLTAGE(max.)	50V	50V
	RATED POWER	45.15W	45.15W
	RIPPLE & NOISE (max.) Note.2	1.9Vp-p	1.2Vp-p
INPUT	RATED VOLTAGE		
	VOLTAGE RANGE		
	EFFICIENCY (max.)	91%	95%
	DC CURRENT (Typ.)	4.2A	2A

■ Features :

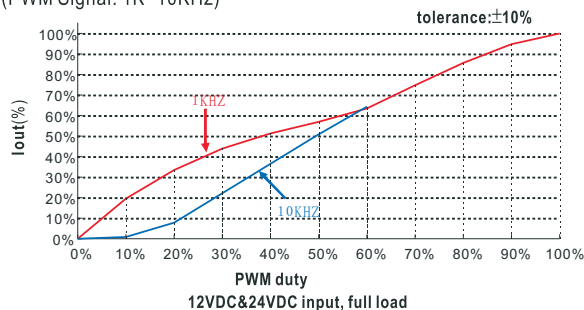
- DC/DC step-up converter
- Constant current output : 350mA to 1050mA
- Wide output LED string voltage up to 126VDC
- High efficiency up to 95%
- Built-in EMI filter ,comply with EN55015 without additional input filter and capacitors
- PWM + analog dimming and remote ON/OFF control
- Protections: Short circuit / Over voltage / Under voltage
- Cooling by free air convection
- Fully encapsulated
- 3 years warranty

PWM Dimming Control:

IO adjustment by PWM Signal

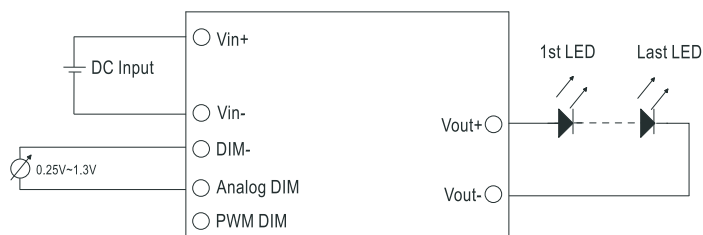


During PWM dimming operation, IO will change with the PWM duty (PWM Signal: 1K~10KHz)

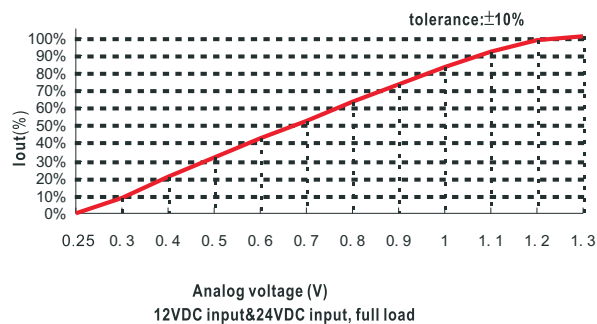


Analog Dimming Control:

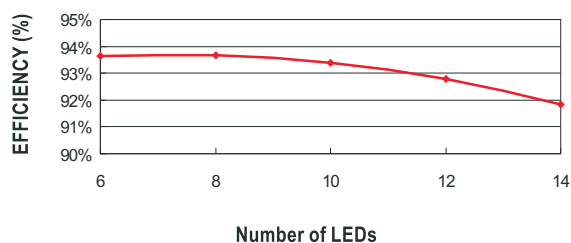
IO adjustment by DC voltage



During analog dimming operation, IO will change with DC input voltage



LDH-45A-1050 12VDC input Vf=3.15V



LDH-45B-1050 24VDC input Vf=3.15V

